ABSTRACT OF THE DISCLOSURE

A segmented exhaust nozzle for attenuating noise from a turbofan jet engine without adversely impacting the operability or operability limit related performance of the engine. The exhaust nozzle includes spaced apart fan nozzle inner and outer walls which form an annular exhaust gas flow path therebetween. The fan nozzle outer wall is segmented at the downstream end. The outer wall curves inwardly towards the inner wall and then turns back away from the inner wall to form an arcuate protrusion that extends into the exhaust gas flow path forming an aerodynamic throat. Through the segmented portion of the nozzle, the outer wall then continues to curve away from the inner wall before again curving back towards the inner wall at a nozzle exit station. The nozzle exit effective area is approximately equal in cross sectional area to a conventional exhaust nozzle exit area. The inwardly curving and then segmented outwardly curving portion of the exhaust nozzle forms a geometric influction that serves to reduce noise without negatively affecting engine operability or operability limit related performance.